

unbundled loop subelements so that the data-friendly technologies described in Section III, above, could be deployed by competing service providers. Third, the Commission should require equal access and interconnection for competitors of the ILECs' packet services. Fourth, the Commission's collocation rules should be revised to eliminate restrictions on the parties that can collocate equipment and the types of equipment eligible for collocation. Finally, the ILECs' prices for these data friendly elements and services should reflect incremental costs, as they would in competitive markets.

**1. Unbundle Existing Part 69 Access Elements
From Each Other**

Many of the newer, data-appropriate technologies described in Parts III and IV can only be deployed by data service competitors to subscribers using ILEC networks if the ILECs unbundle the existing access elements from each other because these technologies may require the use of only one access element or may be inherently incompatible with other elements. The beneficial effects of these data technologies for consumers (in terms of higher data speeds) and for the voice network (in terms of traffic load management) would be blunted or eliminated if data traffic could not be isolated and diverted from the circuit-switched network as early as possible in the call path.

For example, the advanced switching technologies, described in Section III.B above, allow data traffic on local loops to be identified and routed to a data-friendly packet environment before the traffic can congest the LCU of the local

switch.⁹¹ If an ILEC deploys this technology, there would be no justification for allowing it to charge the Part 69 Local Switching or Transport access elements because the customer would be using neither.⁹² The ILEC would therefore need to unbundle its loop charges from other Part 69 elements. A loop charge unbundled from other Part 69 elements would also be a prerequisite for deployment of this technology by competing data service providers. Absent such unbundling, the competing data service provider would be forced to pay for facilities it would not use, driving the cost of employing the technology to uneconomic levels and thereby stymieing competitive entry.

Similarly, for many data services, the most efficient means of providing data-appropriate alternatives to circuit-switched services would be through the use of existing transmission facilities (such as local loop and interoffice transmission services), which are not intrinsically circuit-switched, in combination with packet, frame, or ATM electronics substituted for end office circuit switching equipment. These service configurations would require transmission services to be unbundled from switching functionalities.

Mandatory unbundling would not require significant revisions of the Part 69 access rules. Those rules contain no requirement that ILECs offer access elements on a bundled basis. The requirement was created by the ILECs' tariffs

⁹¹ These technologies enable data traffic to avoid circuit switches, which may relieve ILEC anxiety (however unfounded) regarding potential switch congestion. But the technologies do nothing to resolve the more important loop-related issues of bandwidth for consumers and opportunities for entry by competitors.

⁹² Nor, for that matter, would the ILEC be entitled to impose other Part 69 charges such as Information or SS7 Signalling.

which have historically bundled the switched access elements into feature groups (or into BSAs in the ONA plans) useable by IXC's offering voice telephony services. The Commission itself has recognized that unbundling beyond that reflected in the feature groups and BSAs would benefit ESPs and other users.⁹³

Unbundling the Part 69 access elements would also be technically feasible. The Commission has already reached this conclusion in its Section 251 proceeding.⁹⁴ The Commission determined in that proceeding that the ILECs should be required to establish unbundled network elements ("UNEs") that correspond to the existing Part 69 access elements. The Commission concluded that it is technically feasible for ILECs to offer local loops, local switching, interoffice transmission facilities, and other elements on an unbundled basis that are also provided as part of access service under Part 69.⁹⁵ Given the technical identity between UNEs and their corresponding Part 69 access elements, the record supporting a finding of technical feasibility in CC Docket 96-98 requires the same conclusion in this context.

Unbundled Part 69 access offerings would also facilitate market entry by competing data service providers and would improve consumer welfare. Without the ability to use unbundled elements in ILEC networks, new providers of data services would have to invest immediately, at higher levels, and in duplicative facilities in order to offer data services and to compete with the ILECs' services.

⁹³ *ONA Reconsideration*, 8 FCC Rcd at 4535.

⁹⁴ *Local Competition Order*, 11 FCC Rcd at 15631.

This would increase a competitors' risk of entry and raise its cost of capital, thus delaying market entry and the concomitant benefits to users of a competitive market -- such as prices set closer to economic costs and more diverse and innovative higher bandwidth data services.⁹⁶

2. Disaggregate the loop access elements into subelements

As described in Sections III and IV above, a number of new data-friendly technologies can require the installation of equipment in the loop. For example, xDSL technologies require the installation of equipment at the customer's premises paired with equipment in the LEC's network. The paired equipment can only operate if it is connected by transmission lines that do not exceed certain maximum lengths. Because a significant percentage of customer loops exceed these maximums, installation of the xDSL equipment in central offices often will not be adequate. Many potential data customers could only be served by inserting an xDSL remote terminal in the loop plant between the end-user and the LEC end office. In many cases, installed loop equipment such as bridge taps

⁹⁵ *Id.* at 15689-91, 15705, 15712-13, 15717-18, 15737-38, 15740-41, 15746 & 15765-66.

⁹⁶ Consumers would benefit immediately from broader bandwidth services, both in terms of service speed and variety. In addition, however, the BOCs have advanced in *ex parte* presentations and in the popular press various claims that data traffic (and Internet usage in particular) is causing congestion on their networks that threatens the availability of voice services. As discussed in Sections II and III, above, and in the Coalition's Comments in the *Access Reform* proceeding, *Comments of the Internet Access Coalition*, filed Jan. 29, 1997 in CC Docket No. 96-262, at 13-15, these claims are spurious for a number of reasons. See also *ETI Study* at 19-30. However, if ILECs fail to deploy data-appropriate technologies that would route data traffic more efficiently, or if potential competitors are discouraged from entering the market to do so, extremely high volumes of data traffic could eventually degrade service on the circuit-switched voice network. In that case, the injury to consumer welfare resulting from inadequate deployment of broadband technologies would include degradation of voice service.

or load coils will have to be reconfigured before the xDSL technology will work on a particular loop.

The Commission itself recognized in its *First Interconnection Order* that subloop unbundling would give potential ILEC competitors significant flexibility in their entry strategies. The Commission also noted that, where loop plant must be reconfigured for high-bit-rate digital services to be offered, an ILEC could either remove equipment that interferes with the transmission of digital signals or offer subloop elements.⁹⁷ While equipment reconfiguration to eliminate interference would allow ILECs to provide high-bit-rate digital service, subloop unbundling is necessary if both ILECs and potential competitors are to offer those services. The competitive entry that would result from sub-loop unbundling also would create a powerful incentive for the ILECs to deploy such technologies themselves.

When the Commission considered subloop unbundling in the *First Interconnection Order*, it declined to specify as UNEs loop subelements such as feeder plant, distribution plant, and feeder distribution interfaces.⁹⁸ The Commission observed that the ILECs had identified in that proceeding primarily logistical, rather than technical, impediments to subloop unbundling (e.g., the need to create databases for identifying, provisioning, billing and maintaining subloop elements). The Commission nevertheless declined to order subloop

⁹⁷ *Local Competition Order*, 11 FCC Rcd at 15691.

⁹⁸ *Id.* at 15695.

unbundling because the record before it was not sufficiently developed regarding certain network reliability concerns raised by the ILECs. The Commission stated that it would revisit the specific issue of subloop unbundling this year based on actions taken by the states in response to specific requests for unbundling and "on the importance of subloop unbundling in light of technological advancements."⁹⁹

Since the release of the *First Interconnection Order*, xDSL technologies have been the subject of considerable technical and marketplace interest, including announcements by several ILECs that they would be deploying the technology in their networks.¹⁰⁰ In light of these developments, the Commission should use this proceeding to assemble a more comprehensive and current record regarding the benefits and feasibility of subloop unbundling and the basis, if any, of the ILECs' assertions in their CC Docket 96-98 pleadings that subloop unbundling poses a threat to network reliability.

3. Require equal access and interconnection for competitors of the ILECs' packet services

As described in Section III.B., packet technologies, rather than the circuit-switched voice network, are uniquely suited for data traffic. Thus, the most efficient means of accommodating the growth of data traffic is to ensure that the

⁹⁹ *Id.*

¹⁰⁰ See, e.g., "Ameritech, BellSouth, Pacific Bell, Southwestern Bell Reach Contract Agreement with Alcatel for Purchase of ADSL Equipment," PRNewswire, December 20, 1996. Note, however, that these deployments have been principally for high-volume business locations rather than consumers.

traffic can be routed to a packet environment as early as possible in the network path of a "call."

To maximize the packet resources available for end user traffic, the Commission must eliminate any regulatory barriers to efficient interconnection and deployment of services from competing providers of packet services. Competitive packet network overlays will be offered sooner if the providers of such networks can interconnect to ILEC local network facilities or services on an efficient and non-discriminatory basis.

For example, advanced switching technologies, described in Sections III.B & IV.C, would strip data traffic off of the circuit-switched network and divert it to packet services before the traffic reaches the LCU of the local switch, thereby reducing any risk of future congestion from data traffic and enabling faster data speeds for the data user. These advanced switching technologies assume that packet network facilities will be available at the central office from which the data traffic is diverted.

Under current access rules, however, there is no requirement that the ILECs give competing packet networks equal access to data traffic or efficient interconnection opportunities at central offices that would enable these providers to receive the data traffic diverted by the advanced switching technologies. The Commission's regulatory policies and rules should ensure that packet service providers have competitively-neutral access to data traffic originating on the ILEC's network and efficient interconnection opportunities.

4. Improve collocation opportunities and prices

As explained above, competing data service providers must collocate equipment in ILEC end-offices and throughout the network if they are to deploy innovative data technologies.¹⁰¹ The Commission's existing collocation rules, however, are a patchwork of conditions and restrictions, which severely and unnecessarily limit the parties that can collocate equipment and the types of equipment eligible for collocation.

Physical Collocation. Section 251 of the 1996 Act requires the ILECs to allow competitors to physically collocate certain equipment. The adoption of Section 251 represents Congress' recognition of the significant benefits of physical collocation. However, because Congress was seeking to address a specific issue -- fostering competition among local exchange carriers -- Section 251 does not address *all* of the situations in which collocation would be beneficial. As a result, the Commission's rules implementing that provision contain a number of restrictions that prevent physical collocation from being a fully effective means to facilitate competitive provision of data transport services.

The most significant restriction is that, in order to make use of the rights provided under Section 251, an entity must be a Competitive Local Exchange Carrier ("CLEC"). While some enhanced service providers may wish to operate as "data CLECs," ESP/ISPs that choose not to become common carriers can not exercise Section 251 collocation rights. Moreover, even CLECs will not be able to

¹⁰¹ See, *supra*, Section IV.

physically collocate many forms of switching equipment¹⁰² or the "equipment necessary to provide enhanced services."¹⁰³ The Commission reasoned that such requirements would go beyond the terms of Section 251, which provides only that the ILECs must permit collocation of equipment that is "necessary" for the "transmission and routing of telephone exchange service and exchange access."¹⁰⁴ Thus, under the Section 251 rules, an ILEC is not obligated to collocate POTs splitters, routers, modem pools, file servers, or other equipment necessary for the provision of competitive data service.

Virtual Collocation. Prior to enactment of the 1996 Act, the Commission adopted the *Expanded Interconnection* rules, which allow for "virtual" collocation of certain equipment. Pursuant to these rules, interconnectors are allowed to designate collocated equipment dedicated to their use. The ILECs are required to purchase, install, and maintain this equipment, while the interconnector has the right to monitor and control the equipment on a remote basis.¹⁰⁵

Virtual collocation under the *Expanded Interconnection* rules is not adequate to facilitate the development of competitive data transport services. While a collocating entity need not be a common carrier, it must provide its own fiber optic or microwave connection to the ILEC's central office.¹⁰⁶ This precludes

¹⁰² *Local Competition Order*, 11 FCC Rcd at 15,795.

¹⁰³ *Id.*

¹⁰⁴ *Id.*

¹⁰⁵ See 47 C.F.R. § 64.1401(e).

¹⁰⁶ *Id.* at § 64.1401(e)(1), (2).

most ESP/ISPs -- which typically do not deploy their own transport facilities -- from taking advantage of the *Expanded Interconnections* rules. In addition, the Commission has held that, under its *Expanded Interconnection* rules, an ILEC need only collocate "basic transmission equipment."¹⁰⁷ Thus, like the Section 251 rules, the Commission's *Expanded Interconnection* rules do not mandate collocation of switching equipment or equipment used to provide enhanced services.¹⁰⁸

These limitations on collocation opportunities were not based on any perceived lack of statutory authority. Rather, the Commission's purpose in the *Expanded Interconnection* docket was to enable competitive access providers to offer interstate access services in competition with ILECs. Accommodating the needs of data service providers and their customers simply was not at a goal of that proceeding.

Enhanced Service Equipment. The Commission recently established a limited right to collocate enhanced services equipment. In the *Section 272 Implementation Order*, the Commission ruled that, "if a BOC chooses to allow its information service affiliate to collocate routers, servers, or other equipment . . .

¹⁰⁷ *Expanded Interconnection Order*, 7 FCC Rcd at 7413; *Second Report and Order and Third Notice of Proposed Rulemaking*, 8 FCC Rcd at 7413; *Third Report and Order*, 9 FCC Rcd at 2726.

¹⁰⁸ *Expanded Interconnection Order*, 7 FCC Rcd at 7413, n.224.

used to provide information services, the BOC must permit collocation . . . by similarly situated entities."¹⁰⁹

While the Commission's decision in the *Section 272 Implementation Order* is a significant step forward, it does not establish a general right to collocate equipment necessary for the provision of enhanced services. The sole purpose of this requirement is to prevent a BOC from discriminating in favor of its information service affiliate. Consequently, if a BOC does not allow its information service affiliate to collocate equipment, it is not obligated to provide this right to others.¹¹⁰ The requirement, moreover, does not extend to ILECs other than the BOCs.

The Commission must now take the next step forward. In light of the significant benefits of collocation, the Commission should require that, to the extent feasible, all incumbent LECs allow collocation -- at least on a "virtual" basis -- of all forms of transmission, switching and enhanced service equipment. The ILEC should be required to provide collocation on a non-discriminatory basis, under tariff, at prices based on incremental cost.

5. Adopt LRIC pricing standard for collocation and unbundled elements

The Commission's efforts to construct a pro-competitive regulatory regime for data services will be futile if the ILECs are permitted to charge anticompetitive

¹⁰⁹ *Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934*, CC Dkt. No. 96-149 (rel. Dec. 24, 1996) ("*Section 272 Implementation Order*") at ¶ 221.

¹¹⁰ Even if the BOC allows its information service affiliate to collocate enhanced service equipment, the BOC need not extend this right to non-affiliated ESPs if the BOC's affiliate also provides telecommunications services. See *id.*

rates for data-appropriate elements and services. Accordingly, the Commission should adopt a Long-Run Incremental Cost ("LRIC") standard for the prices of any Part 69 elements developed in this proceeding.

In each of the "Competitive Trilogy" proceedings discussed above, the Commission proposed a cost standard that requires the pricing of network elements and services by reference to forward-looking economic cost.¹¹¹ Pricing based on forward-looking economic cost encourages competition while allowing incumbent carriers to earn a fair return on their investment.¹¹² Because the Commission has already enumerated the reasons for adopting a forward-looking pricing methodology, the Coalition will only briefly review below the benefits of such a methodology for the pricing of data services.

As the Commission observed in the *Local Competition* Order, "[a]dopting a pricing methodology based on forward-looking, economic costs best replicates, to the extent possible, the conditions of a competitive market."¹¹³ Forward-

¹¹¹ See *Local Competition Order*, 11 FCC Rcd at 15844-56; *Federal-State Joint Board on Universal Service*, 12 FCC Rcd at 230-32 (1996) ("*Recommended Decision*"); *Access Charge Reform*, CC Dkt. No. 96-262, *Notice of Proposed Rulemaking*, FCC 96-488 (rel. Dec. 24, 1996) at ¶¶ 223-27. See also *Regulation of International Accounting Rates*, CC Dkt. No. 90-337, Phase II, *Second Further Notice of Proposed Rulemaking*, 7 FCC Rcd 8040 (1992).

¹¹² ILEC' claims that the use of forward-looking economic costs as a pricing standard deprives them of their ability to recover their stranded investment are misleading. Under the Total Element Long-Run Incremental Cost ("TELRIC") pricing standard the Commission adopted for unbundled network elements in the *Local Competition Order*, the TELRIC price included a fair return on investment. See *Local Competition Order*, 11 FCC Rcd at 15854-56, 15859, 15871. And in any event, the courts have consistently rejected claims by utilities that regulated rates are unconstitutional because they deprive them of the ability to recover embedded costs. *E.g.*, *Duquesne Light Co. v. Barasch*, 488 U.S. 299 (1989), *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944); *Illinois Bell Tel. Co. v. FCC*, 988 F.2d 1254 (D.C. Cir. 1993).

¹¹³ *Local Competition Order*, 11 FCC Rcd at 15,846.

looking cost-based pricing also “reduces the ability of an incumbent LEC to engage in anti-competitive behavior” by selling competitors bottleneck facilities at a wholesale rate higher than the economic cost the LEC incurs in providing its own competing services.¹¹⁴

Moreover, forward-looking cost standards, including the TELRIC and TSLRIC standards adopted by the Commission, “give appropriate signals to producers and consumers and ensure[] efficient entry and utilization of the telecommunications infrastructure.”¹¹⁵ The Federal-State Joint Board has explained that this is because “[t]hose costs best approximate the costs that would be incurred by an efficient competitor entering the market.”¹¹⁶ Forward-looking pricing “allows the requesting carrier to produce efficiently and to compete effectively, which should drive retail prices to their competitive levels.”¹¹⁷

The record developed thus far in the Competitive Trilogy proceedings on the economic and competitive benefits of forward-looking cost standards are voluminous, and the Coalition respectfully directs the Commission to the analyses and record evidence in those dockets for a more complete survey of the economic arguments in favor LRIC pricing. For the reasons described in the records of those proceedings, the Commission should adopt LRIC pricing for unbundled Part 69 access elements.

¹¹⁴ *Id.*; see also *Recommended Decision*, 12 FCC Rcd at 230-32.

¹¹⁵ *Local Competition Order*, 11 FCC Rcd at 15817.

¹¹⁶ *Recommended Decision*, 12 FCC Rcd at 230.

¹¹⁷ *Local Competition Order*, 11 FCC Rcd at 15846.

B. Other Regulatory Incentives For ILECs to Deploy Data-Friendly Technologies Pending The Development of Competition

The Commission has previously attempted to create incentives -- similar to those that would exist in a competitive market -- to encourage the ILECs to invest in technologically current network facilities that would deliver high quality data and telephony service for end users. The Commission substituted "incentive" regulation for traditional rate-of-return regulation in its Price Caps Orders for LECs.¹¹⁸ The Commission believed that incentive regulation would require closed-market carriers to reduce their rates while creating positive incentives for greater efficiency and innovation.¹¹⁹ In particular, the Commission hoped that, "by replicating many of the effects of competition," price caps "would encourage the LECs to modernize their networks, deploy new technologies, and offer new services."¹²⁰

The inadequate deployment of up-to-date data-appropriate technologies in local exchange networks demonstrates that regulation cannot produce incentives as powerful as competition in the marketplace. As described in Section IV.A, the ILECs historically have been slow to deploy efficient data transport technologies, particularly those that introduce appropriate bandwidth levels into local loops, despite the fact that data services have produced record

¹¹⁸ *Policy and Rules Concerning Rates for Dominant Carriers*, CC Dkt. No. 87-313, *Further Notice of Proposed Rulemaking*, 3 FCC Rcd 3195 (Rel. May 23, 1988).

¹¹⁹ *Price Cap Performance Review for Local Exchange Carriers*, 9 FCC Rcd 1687, 1688 (1994) ("Performance Review").

¹²⁰ *Performance Review*, 9 FCC Rcd at 1692; *Performance Review First Report and Order*, 10 FCC Rcd 8961 (1995).

revenues to fund such investment.¹²¹ Even though the Commission's price caps rules eliminated restrictions on price caps LECs' earnings and granted significant pricing flexibility to price caps LECs for new services, those carriers have failed to respond to consumer demand for data services with investment in new data technologies. To the contrary, the BOC "cost studies" submitted last summer, which purported to demonstrate that Internet traffic is threatening the quality and availability of voice telephony service,¹²² demonstrated the BOCs' unwillingness to invest in even routine traffic management efforts at the few isolated end offices at which ESP traffic is concentrated.¹²³

Competition, and the threat that a competitor will attract customers from an ILECs' revenue-generating customer base, creates the most effective incentive for ILECs to invest in the technological upgrades required for higher bandwidth, better services, and efficient traffic management for data and voice customers alike. Therefore, the Commission's consideration in this docket of the policy and rule changes needed to stimulate the deployment of data-friendly technologies should focus on the regulatory changes needed to facilitate the development of competition in data services markets.

¹²¹ *ETI Study* at Appendix A.

¹²² US West Communications, *ESP Network Study - Final Results* (Oct. 1, 1996); US West Communications, *ESP Network Study* (June 28, 1996); Pacific Bell, *ESP Impact Study* (July 2, 1996); Bellcore, *Impacts of Internet Traffic on LEC Networks and Switching Systems*; Letter from Kenneth Rust, Director of Federal Regulatory Matters, NYNEX, to James Schlichting, Chief, Competitive Pricing Division, FCC of (July 10, 1996); ("NYNEX Study"); Bell Atlantic, *Report of Bell Atlantic on Internet Traffic* (June 28, 1996), ("Bell Atlantic Study") (all filed with the Competitive Pricing Division).

¹²³ *ETI Study* at 5-18.

VI. THE COMMISSION SHOULD NOT ALTER ITS PRO-COMPETITIVE, DEREGULATORY POLICIES REGARDING THE ENHANCED SERVICES MARKETPLACE

A. The Commission Should Not Adopt Enhanced Service "Sub-Categories"

In the Notice, the Commission asks whether its rules should "distinguish between different categories of information or enhanced services."¹²⁴ Although not entirely clear, the Commission appears to be seeking comment as to whether it would be appropriate to impose access charges on entities that offer enhanced services that involve "long hold-time calls." The Coalition strongly opposes any proposal to create "sub-categories" of enhanced services, or to impose carrier access charges (or any other form of common carrier regulation) on *any* ESP/ISP.

Since the adoption of the *Computer II Order* in 1980,¹²⁵ the Commission's rules have created a clear line of demarcation between regulated basic transmission service and enhanced services. ESP/ISPs are treated like other end-users: their offerings are not subject to common carrier regulation, and they are not required to pay carrier access charges. The Commission repeatedly has observed that adoption of this clear-cut, pro-competitive regulatory regime has resulted in the growth of the Internet and other enhanced services.¹²⁶

¹²⁴ *Information Service NOI*, note 6, *supra*, at ¶ 316.

¹²⁵ See *Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry)*, 77 F.C.C.2d 384 (1980) (subsequent history omitted).

¹²⁶ See, e.g., *Information Service NOI* at ¶ 285 ("It is extremely likely that, had per-minute interstate access rates applied to ESPs over the past 13 years, the Internet and other information services would not have developed to the extent they have today -- and indeed might not have developed commercially at all.").

In adopting the Telecommunications Act, Congress codified the Commission's basic/enhanced dichotomy.¹²⁷ The legislature also expressed a clear preference for continuing the non-regulated status of the Internet and other on-line services.¹²⁸ Any proposal that would carve out "sub-categories" of enhanced services, and subject these competitive offerings to access charges or other carrier-type regulation, plainly would be inconsistent with the express will of the Congress.

The Commission's apparent assumption is that enhanced services with long hold-times impose disproportionate (and uncompensated) costs on the network. As demonstrated in Section IV, long-hold time calls -- whether voice or data -- do not necessarily impose greater costs on the network. Moreover, as also demonstrated above, the ILECs are already being fully compensated for the costs that ESP/ISPs impose on the PSTN.¹²⁹ Indeed, the increased revenues from the growth of the Internet and other enhanced services significantly exceeds the added costs that ESP/ISPs have imposed on the network.

Attempts to distinguish among enhanced services based on the length of call hold-times also would be inconsistent with the Commission's decision in *Computer II* to eliminate the need for time-consuming, individualized assessments

¹²⁷ Section 272 Implementation Order at ¶ 102 (The "definitions of 'information services' and 'enhanced services' can and should be interpreted to extend to the same functions.").

¹²⁸ See 47 U.S.C. §230(b)(2) ("It is the policy of the United States . . . to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or state regulation.")

¹²⁹ See, *supra*, Section II.

of whether a given service is subject to regulation by establishing a clear dichotomy between regulated basic transmission and non-regulated enhanced services.¹³⁰ If such an approach were adopted, the Commission would be required to establish enhanced service sub-categories, create detailed regulations to determine which services fell within each category, and determine which categories would be deemed to constitute long-hold-time services. This would inevitably lead to arbitrary distinctions and, ultimately, to the discriminatory imposition of regulation on certain ESP/ISPs.¹³¹

In any case, concerns regarding long hold-time calls will cease to exist once packet technology is widely deployed. As explained above, in packet networks, no dedicated physical connection is established between the points of origin and reception.¹³² Rather, data from an individual sender is encapsulated in multiple packets, mixed with packets of data from other users, and sent into the network, where it is intermingled with packets containing data from countless other users. In such an environment, each enhanced service will consume only the amount of network capacity that it actually requires, thereby significantly reducing concerns about network congestion.

¹³⁰ See *Computer II Order*, 77 F.C.C.2d at 425.

¹³¹ Indeed, as the Commission has recognized, any attempt to distinguish among enhanced services could result in "literally hundreds of adjudication's over the status of individual service offerings [S]uch proceedings could lead to unpredictable and inconsistent regulatory definitions . . . such proceedings also could consume a very significant proportion of the resources of [the] agency [This] . . . would necessarily reduce the resources available for regulating basic services and ensuring non-discriminatory access to common carrier telecommunications facilities." *Computer II Order*, 77 F.C.C. 2d at 434-35.

¹³² See, *supra*, Section III.B.

**B. The Introduction of Internet Telephony Requires No
Change in the Commission's Regulatory Regime**

The Notice specifically asks whether the introduction of "Internet telephony" affects the continued validity of the Commission basic/enhanced dichotomy.¹³³ No justification has been presented for altering the current regulatory regime.

In the Notice, the Commission observes that "software has been developed that allows a voice conversation to be conducted over the Internet."¹³⁴ There can be little doubt that the provision or use of software that consumers insert into their premises-based personal computers does not constitute the provision of a basic telecommunications service. Rather, it is an example of consumers exercising their well-established right to connect unregulated customer premises equipment to the public switched network in a manner that is "privately beneficial without being publicly detrimental."¹³⁵

Nor do concerns regarding network congestion provide a basis for the imposition of regulation on Internet telephony. Indeed, neither Bellcore nor any of the BOC studies submitted in this docket even suggests that Internet telephony is the cause of the congestion problems that they claim exist.

There is little benefit to be gained from using this proceeding to address the regulatory issues raised by Internet telephony. Rather, the Coalition urges the Commission to focus its resources on the principal issue presented in this inquiry:

¹³³ *Id.*

¹³⁴ *Id.*

¹³⁵ *Use of the Carterfone Device in Message Toll Telephone Service*, 13 F.C.C.2d 420, 423, *recon. denied*, 14 F.C.C.2d 571 (1968).

how to "create incentives for the deployment of services and facilities to allow more efficient transport of data traffic to and from end users."¹³⁶

VII. THE COMMISSION SHOULD DEVELOP A SUFFICIENT RECORD TO EVALUATE THE TECHNICAL AND ECONOMIC FEASIBILITY OF NEW DATA-FRIENDLY TECHNOLOGIES AND FORMULATE PROPOSALS FOR A SUBSEQUENT NPRM

The NOI observes that in order to make "informed judgments" in the area of emerging packet-switched data networks "better empirical data are needed."¹³⁷ The NOI specifically "encourages commenters to provide data on characteristics of information service usage and its effects on the network," with emphasis on data pertaining to ILECs' "costs directly related to ESPs' use of the PSTN . . . [and] . . . revenues attributable to ESP traffic . . . administrative and technical issues . . . jurisdictional, metering, and billing questions[.]"¹³⁸ The Coalition supports this approach, and believes that "information-gathering" should be the focus of the Commission's efforts in this stage of the proceeding.

More, information is necessary before the Commission can address additional appropriate regulatory requirements in response to technological advances in, and consumer demand for, data-friendly services. The Commission first must collect data regarding the range of new technologies suitable for data services; the technical and economic feasibility of deploying these technologies; the extent to which the ILECs intend to deploy, or open up their networks to

¹³⁶ *Information Service NOI* at ¶ 313.

¹³⁷ *Information Service NOI* at ¶ 311.

competitive deployment of, these new technologies; the feasibility of competing providers deploying this technology using component services from ILEC networks: and the feasibility and likelihood of deployment by competing facility-based providers who bypass ILEC networks. Without data on these issues, the Commission cannot reasonably determine who the service providers will be for data services, how their services will be configured, and what services will be needed from regulated carriers.

To the extent that relevant data are available or maintained exclusively by the ILECs, the data should be submitted on the record in this proceeding. Of particular relevance to this proceeding is any data supporting the claims by some ILECs of incompatibility among loop electronic systems and threats to network reliability resulting from subloop unbundling. If the ILECs seek to dissuade the Commission from allowing consumers to reap the pro-competition benefits of subloop unbundling, they must come forward with far more detailed information to support their assertions.

CONCLUSION

A competitive marketplace for data transmission services will produce the affordable and innovative network services and products that consumers, both

Internet Access Coalition
March 24, 1997

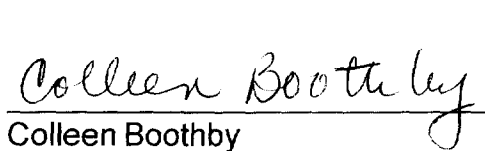
business and residential, need to fully realize the benefits of modern information technology products. As the Commission has long recognized, competition is the most effective mechanism for reducing the cost of telecommunications services and equipment, spurring innovation, increasing consumer choice, and responding most efficiently to consumer demand. Based on the record compiled in this proceeding, the Coalition urges the Commission to propose the changes to its rules that will facilitate development of just such a competitive market for data transport services. By doing so, the Commission can ensure that all Americans will be able to share in the benefits of the Information Age.

Respectfully submitted,

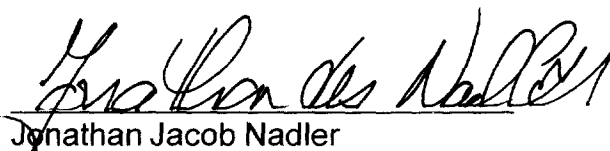
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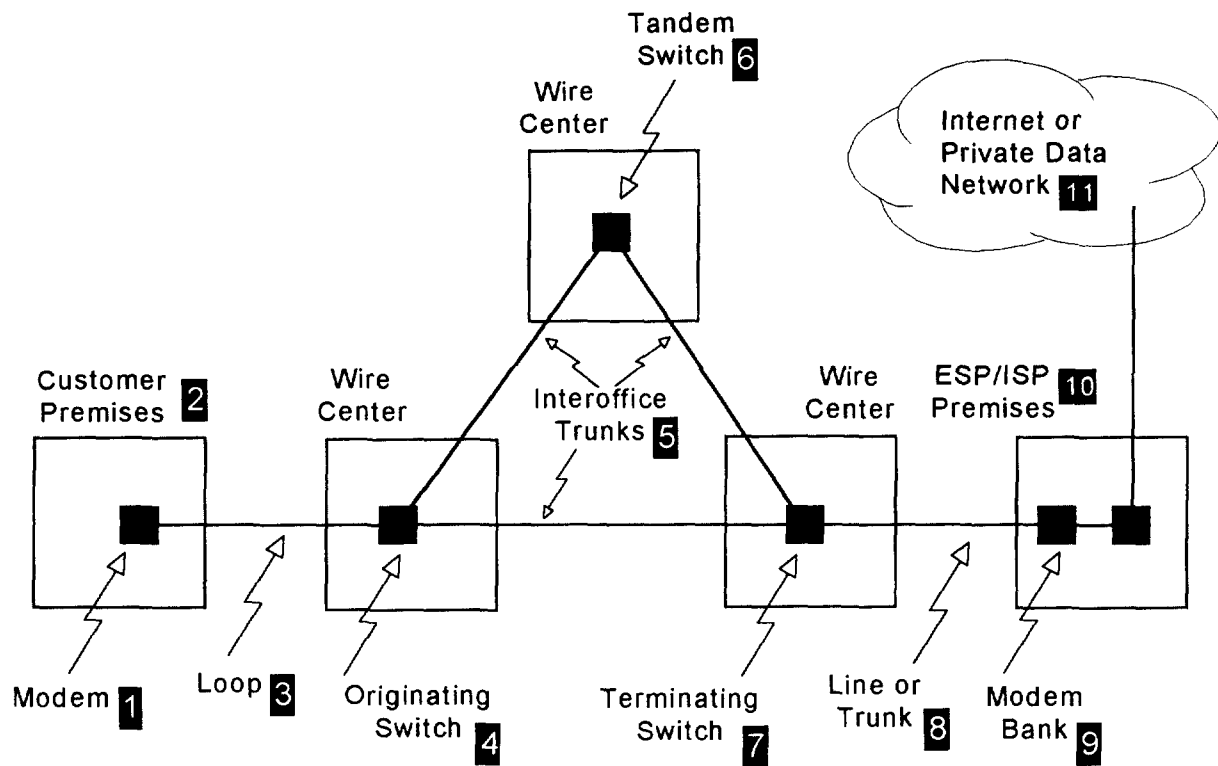

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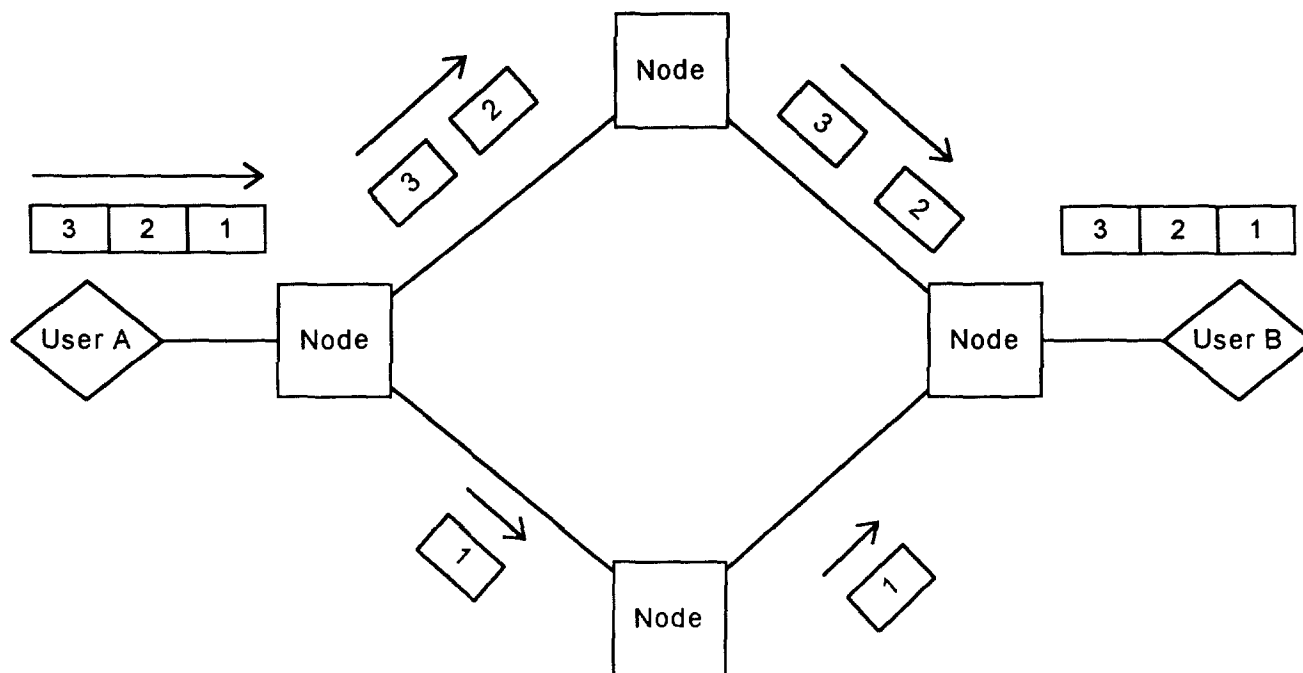

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**Figure 1: Typical ESP/ISP
Access Arrangement with Local Circuit Switched Telephone Network**



**Figure 2: Basic Operation of a Packet Network,
sending a three-packet message from User A to User B**